

Letter of Justification for an Emergency STA

The City of Arlington, Texas (hereafter “The City” or “the Applicant”) respectfully requests an emergency STA under FCC Rule Section 1.931 in order to make few modifications to their 800 MHz system and complete the replacement of old, outdated analog equipment with new P25 TDMA equipment that will provide enhanced radio system coverage, capacity, reliability, and interoperability with other entities. Implementation of the new system is in progress and will require modifications of existing license WNDW499. The current 10 year old BMR10-O (10 dBd gain) penetrator antennas will be swapped out with new PIP and PIM rated Sinclair SC412 (11.5 dBd gain) Omni directional antennas with two degree downtilt at each of the two existing sites. The TDMA emission designator (9K80D7W) will be added to the existing licenses to support the TDMA operation on the new equipment. There will also be minor modifications to the antenna heights where new antennas are mounted slightly lower than the existing approved antenna height (around 60-80 feet lower). A new site at Lake Arlington is also proposed as a part of this modification to extend and improve the coverage in the city for additional public safety and public works users. This new site will fill in the coverage holes in the city and provide much needed coverage towards the west side of the service area which is currently not covered. It is the desire of the City to be able to immediately transition over to the new system as soon as these modifications can be accomplished in order to provide the improvements that are seriously needed by our local Public Safety and Emergency Medical personnel with the busy event season starting (Football and regional/national events). Arlington Public safety and EMS services along with the adjacent cities play a significant role in facilitating these regional and national events.

The old analog FDMA system is over 10 years old and due to the increased demands on the system by the number of users that have significantly increased from 700 to 2000, the system is no longer sufficient to meet the City’s needs. The existing equipment will be replaced by new state of the art TDMA radio equipment maintaining the licensed power and ERPs. The current twelve frequency system will add significant channel capacity by providing 22 voice paths, without having to add additional frequencies. This along with the new third site will greatly enhance the radio system coverage into areas that both police and fire personnel have had poor to no radio coverage due to the increased demands on the current system. Likewise, the new system design will allow greater capacity on the current frequencies, creating more reliable communication for our own units, but also during extreme situations when interoperability with law or fire personnel from surrounding cities are required. For instance, there have been numerous situations where Arlington Police have ventured into adjacent cities and counties in a pursuit and their connectivity back to their system is completely lost. This has created a major officer safety issue with no communication option left. With the new system that supports expanded Level 5 Shared System Interoperability, the officers will always be able to connect back to their system and dispatch when in the coverage area of other local jurisdictions that are connected to the same P25 core.

Another feature that will be offered with the new system is voice encryption that the Police Department requires as a part of their functionality to safeguard the officers from various instances of hacking. This has become an increasing officer safety issue that needs to be corrected as soon as possible, since the current old system does not support encrypted voice communication.

Confusion in failure scenarios (such as loss of links or equipment failures) on the existing system have resulted in safety concern for both our police and fire personnel. The new system adds redundancy and reliability that significantly reduces the chances of confusing operation changes to personnel during a failure.

Surrounding communities (the Cities of Irving, Mansfield, Fort Worth, Euless, Bedford, and Grand Prairie) have recently upgraded to P25 standard on a regional system, reducing interoperability and coordination capabilities for Arlington with these Cities. In addition to their Police and Fire Departments, their Emergency Medical services, hospitals, and Care Flight services have also changed over to the new P25 regional system. It is critical that Arlington be allowed to make this change over quickly in order to improve coordinated Public Safety and Emergency Medical responses with these other communities. With few thousands of people coming together for the events kick starting in Arlington (ATT Stadium) by end of October, it becomes even more essential for the City to move to the new and improved P25 system which will provide our own first responders and other public safety services the best communications possible to save the lives and property of our citizens, as well as to provide better safety for our Public Safety and Emergency Medical personnel during the course of their daily activities.

For the reasons noted above, the City of Arlington, TX submits that they have provided justification to request an Emergency Special Temporary Authority that will allow them to move forward with these changes to their existing system immediately and to begin operation on the new system while the permanent applications for modification of the above noted call sign is awaiting coordination and FCC processing. Therefore, the City respectfully requests an affirmative response to this STA request.